

# Work Order ID 83292

April-16-12 2:53:47 PM

**\*83292\***

Page 1

*June 15th*

Item ID: D350-748-241TRN

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Crosstube Turning Detail

Stop **\*NS2\***

Start Date: 16/04/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 30/04/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: *MLJ* Date: *12/04/16* Tooling:

Run Start **\*NR1\***

QC: Date: SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D350-748-241	F								

100 0.00

**\*100\***

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.00

Mori Seiki CNC Lathe Large

1-Fill tube with sand & install plugs on both ends as per Folio FA647  
2-Turn first side as per Folio FA647  
3- File transition lines smooth.  
FOLIO REV: \_\_\_\_\_  
DWG REV: \_\_\_\_\_

*1* *Ø*

*MM.L*

*12/04/22*

110 0.00

**\*110\***

QC1- Inspect dimensions to dimension sheet

QC

Memo

0.00

Quality Control

*1* *Ø*

*MM.L*

NOTE: Date & Initial all entries  
H:\FORMS\Quality Assurance\approved QA\NCRW O RevE

W/O: 83292

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D350-748-241TR PAR #: \_\_\_\_\_ Fault Category: X-tube NCR: Yes No DQA 12/12/12 Date: 12/12/12

Resolution: \_\_\_\_\_ Disposition: use as is QA: N/C Closed: 12 Date: 11

NCR: 12-2005

## WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12.05.02	100	Cuff machined to Ø 2.190 at 0.080" long area at end of cuff.	GP 17.09.07 QPS1012	Acceptable. GRIND TRANSITION SMOOTH	JW 12-05-02	S note	GP 12.05.02 QPS1012	S note

**\*83292\***

Page 2

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 16/04/2012      **Start Qty:** 1.00

**\* 1 \***

**Cust Item ID:**

**Required Date:** 30/04/2012      **Req'd Qty:** 1.00

**\* 1 \***

**Customer:**

**Reference:**

**Approvals:**                      **Process Plan:**

Date:

**Tooling:**

**Date:**

Run Start \*NR1\*

**QC:**

Date:

**SPC (Y/N):**

**Date:**

Stop \*NR2\*

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**\*83292\***

Page 3

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 16/04/2012    **Start Qty:** 1.00    **\*1\***

**Cust Item ID:**

**Required Date:** 30/04/2012      **Req'd Qty:** 1.00      **\* 1 \***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150

0.00

**\*150\***

## Large Fab

0.00

## Crosstubes

## Memo

## Crosstubes

Grind machining marks.

160

Outsource process - Heat Treat

0.00

**\*160\***

## Memo

0.00

### Outsource1

Issue P/O: 16899  
Heat Treat to min 180 KSI As per Dwg D350-748-241  
Sand Blast tube after Heat Treat  
Possible Supplier: Vac Aero  
Ensure Certificate of Conformity is attached

170

Receive & Inspect for Damage & Mat'l Certs

0.00

**\*170\***

## Memo

0.00

### Packaging

## Packaging

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Work Order ID 83292

**\*83292\***

Page 4

April-16-12 2:53:47 PM

Item ID: D350-748-241TRN

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Crosstube Turning Detail

Start Date: 16/04/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 30/04/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC6- Inspect dimensions to drawing	0.00							
<b>*180*</b>									
QC	Memo	0.00		5 17/08/08		(d)			
Quality Control									
190	Packaging	0.00							
<b>*190*</b>									
Packaging	Memo	0.00							
Packaging	Identify and stock in kanban rack Location: _____								
200	QC21- Final Inspection - Work Order Release	0.00							
<b>*200*</b>									
QC	Memo	0.00							
Quality Control									

12-6-15 h

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

April-16-12 2:53:51 PM

Page 1

Work Order ID: 83292

\*83292\*

Parent Item: D350-748-241TRN

\*D350-748-241TRN\*

Parent Item Name: Crosstube Turning Detail

Start Date: 16/04/2012

Required Date: 30/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 08-03-06 DD verified by:ec  
 IPP Rev B Removed polish 08.04.02 EC verified by : DD  
 IPP Rev C Removed LPS-3 08.06.23 Ec verified by: DD IPP Rev D  
 11.02.24 as per dwg rev.F DD verf: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6015-125		Manufactured	No			120	Each	44.0000	1	1			

\*D6015-125\*

\*\*

Crosstube Material

Location	Loc Qty	Loc Code
HALL	44	
61380	4	
72511	40	
32913		

Use D6018-125

KC 12-4-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

83292

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	83286
<b>Description:</b> Crosstube Assembly (AS350/355 High Aft)		<b>Part Number:</b>	D350-748-241
<b>Inspection Dwg:</b> D350-748-241 <b>Rev:</b> F		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.241	✓		vern	CNC-08
	2.180	+0.005/-0.000	2.183	✓			
	2.180	+0.005/-0.000	2.182	✓			
	2.208	+0.005/-0.000	2.209	✓			
	2.234	+0.005/-0.000	2.235	✓			
	2.253	+0.005/-0.000	2.253	✓			
	2.272	+0.005/-0.000	2.277	✓			
	2.299	+0.005/-0.000	2.299	✓			
	0.063	+/-0.010	.063	✓		vern	CNC-08
	4.26	+/-0.030	4.26	✓		"	
	R0.063	+/-0.010	.063	✓		R6	
	R0.50	+/-0.030	.500	✓		"	
SIDE B	2.240	+0.005/-0.000	2.242	✓		vern	CNC-08
	2.180	+0.005/-0.000	2.185	✓			
	2.180	+0.005/-0.000	2.185	✓			
	2.208	+0.005/-0.000	2.213	✓			
	2.234	+0.005/-0.000	2.238	✓			
	2.253	+0.005/-0.000	2.255	✓			
	2.272	+0.005/-0.000	2.277	✓			
	2.299	+0.005/-0.000	2.299	✓			
	0.063	+/-0.010	.063	✓		vern	CNC-08
	4.26	+/-0.030	4.26	✓		"	
	R0.063	+/-0.010	.063	✓		R6	
	R0.50	+/-0.030	.500	✓		"	
	122.70	+/-0.060	122.70	✓		tape	CNC-02

<b>Measured by:</b>	MAN.C	<b>Audited by:</b>	DP	<b>Preliminary Approval:</b>	
<b>Date:</b>	12/04/21	<b>Date:</b>	7-5-3	<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue (P/O D350-748-201)	KJ/JLM	
B	12.02.02	Dwg Rev updated	KJ	

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Item	Qty -241	Part Number	Description
1	X	D350-748-241	CROSSTUBE ASSEMBLY (AS 350/355 HI AFT)
2	1	D6015-125	CROSSTUBE (OR D6018-125)
3	2	D3502-1	SUPPORT
4	2	D2856-400-710	ABRASION STRIP
5	1	AELS-1032-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-20	CLAMP (PER DART SPEC. M-MS21920-20)
8	1	MS27039-1-10	SCREW

#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6015-125 OR D6018-125  
FINISHED LENGTH = 122.700±0.06
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2  
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART PART NUMBER "D350-748-241" AND BATCH NUMBER ON INSIDE OF CUFF  
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 29.85 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT ALL EDGES FROM MACHINING  
LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH. NOTE: ALL HOLES ARE DRILLED AFTER  
BENDING.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES. MAXIMUM TUBE FLATTENING DUE TO  
BENDING IS 6% BASED ON O.D.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6735 OR AMS 2759-1C AFTER TURNING. ACCEPTABLE TO  
VERIFY TENSILE STRENGTH BY HARDNESS TEST PER ASTM E18 TO 40-45 HRC.
- 12) INSTALL D2856-400-710 ABRASION STRIPS WITH A GAP ON BOTTOM SIDE OF CROSSTUBE,  
CENTERED OPPOSITE D3502-1 SUPPORT, PER QSI 035.
- 13) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE  
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES,  
NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY.  
CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE  
MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO  
CRACKING/CHIPPING/GROOVES.
- 14) TORQUE CLAMPS 60 TO 80 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT  
NUT HAS NOT BOTTOMED OUT AFTER TORQUING.
- 15) MAX TWIST AFTER BENDING: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN  
CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.25 (ZN C1-3).

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. ~~83286~~ M L J

12/04/16

RELEASED  
2011-07-08  
MR

F	ADD HRC TEST OPTION (B8-1) PER PAR 08-040, ADD TWIST LIMIT (A8-1, C1-3), ADD D6015-125 OPTION (C8-1), STOCK DIM NOW MACHINED (D1-4)	CP	10.11.23
E	REVISE GENERAL NOTES; UPDATE TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A8-3); ADD TOLERANCES (ZN C6-3, D2-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6018-125 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN	90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	90		
CHECKED	15	DRAWING NO.	REV. F
MFG. APPR.	15	D350-748-241	SHEET 1 OF 4
APPROVED	15	TITLE	SCALE
DE APPR.	15	CROSSTUBE (AS 350/355 HI AFT)	NTS
DATE	10.11.23	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

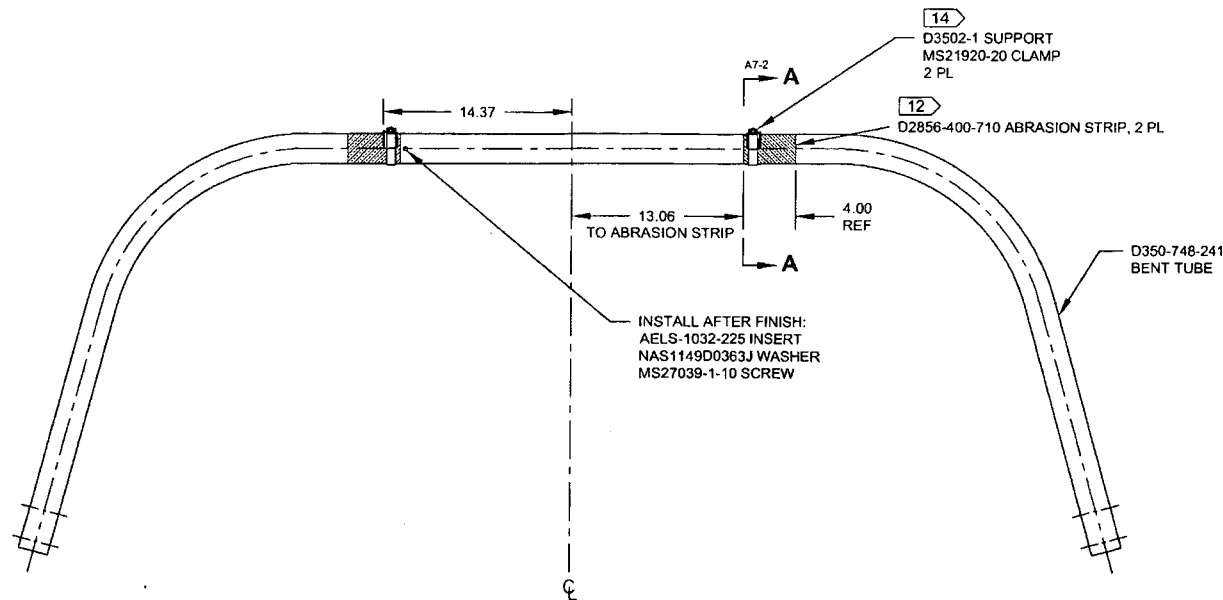
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

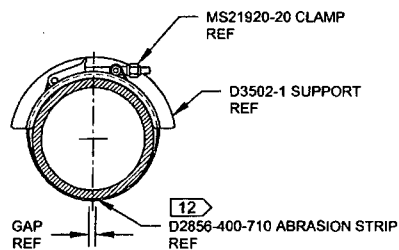
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries



**D350-748-241  
ASSEMBLY DETAIL**



**SECTION A-A** D4-2  
SCALE 4X

**RELEASED**  
2011-02-19  
JAN

DESIGN	9P	<b>DART AEROSPACE LTD</b>	
DRAWN	9P	HAWKESBURY, ONTARIO, CANADA	
CHECKED	13	DRAWING NO.	REV. F
MFG. APPR.	13	D350-748-241	SHEET 2 OF 4
APPROVED	13	TITLE	SCALE
DE APPR.	13	CROSSTUBE (AS 350/355 HI AFT)	NTS
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

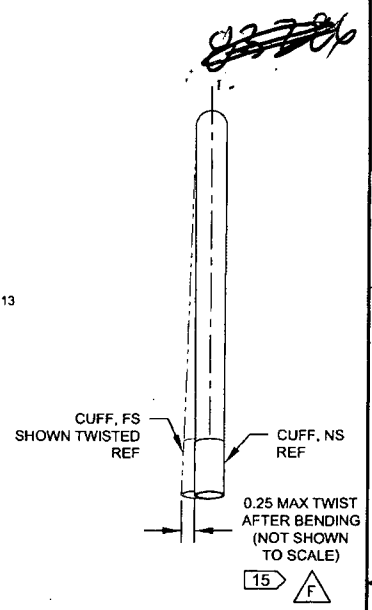
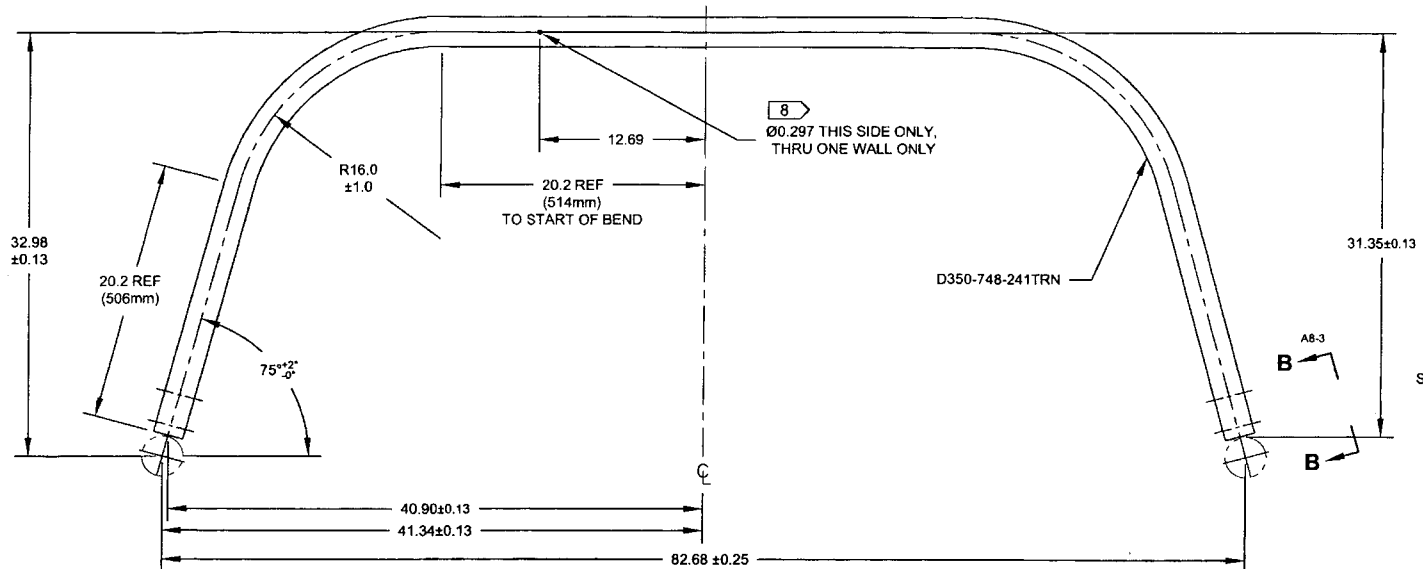
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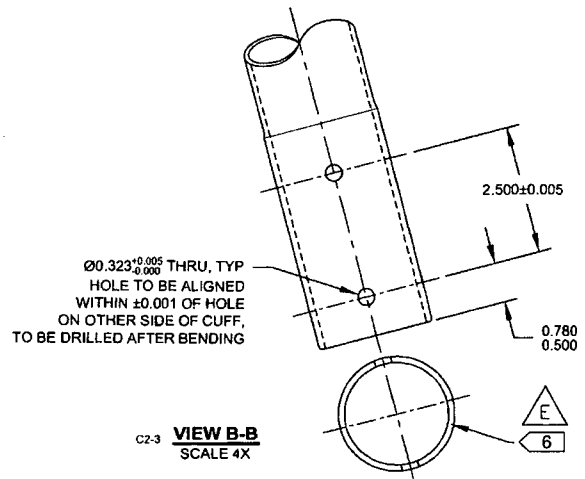


03292



**D350-748-241**  
**BENDING AND DRILLING DETAIL** 10

RELEASED  
2011-01-18



**VIEW B-B**  
SCALE 4X

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D350-748-241	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CROSSTUBE (AS 350/355 HI AFT)	NTS
DATE	10.11.23	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

## Linda Lacelle

---

**From:** David Shepherd <dshepherd@dartaero.com>  
**Sent:** March-08-12 11:58 PM  
**To:** 'Linda Lacelle'; 'Provençal, Chris'  
**Cc:** 'Pat Smith'; 'Bill Beckett'; 'Mike Petsche'  
**Subject:** RE: 350 crosstube extrusion

Linda,

Not sure if you heard back from anyone on this, but this makes sense to me.

David

---

**From:** Linda Lacelle [<mailto:llacelle@dartaero.com>]  
**Sent:** March-07-12 7:11 AM  
**To:** [dshepherd@dartaero.com](mailto:dshepherd@dartaero.com); Provençal, Chris  
**Cc:** Pat Smith; Bill Beckett; 'Mike Petsche'  
**Subject:** RE: 350 crosstube extrusion

So just to confirm, we can use the old D6018-125's for the afts to deplete this stock?

Thx  
Linda

---

**From:** Linda Lacelle [<mailto:llacelle@dartaero.com>]  
**Sent:** March-06-12 10:19 AM  
**To:** [dshepherd@dartaero.com](mailto:dshepherd@dartaero.com); Bill Beckett ([bbeckett@dartaero.com](mailto:bbeckett@dartaero.com)); 'Mike Petsche' ([mpetsche@dartaero.com](mailto:mpetsche@dartaero.com)); Provençal, Chris  
**Cc:** Pat Smith ([psmith@dartaero.com](mailto:psmith@dartaero.com))  
**Subject:** 350 crosstubes

Not sure who direct these ones to:

- 1) We will be finished drilling the last crosstubes shortly, these 7 & 7 will ship today for heat treating. Do we wait before drilling the balance until we receive the first shipment back, or continue on drilling? We probably won't see these first ones back for a couple of weeks, but I'd like to make sure we don't wait until the last minute.
- 2) We currently have 44pcs of D6015-125 in stock, this extrusion does both the fwd and aft 350 crosstubes. We also still have 38pcs of D6018-125, which does the aft 350 crosstubes. Should we place an order now to order more D6015-125? Can we use up the balance of the D6018-125's until depleted for all the next afts and use the D6015-125 for the fwds only?

Thank You,  
Linda Lacelle  
Production Manager  
Dart Aerospace Ltd  
Hawkesbury, ON  
Phone: 613 632 9577  
Fax: 613 632 1053  
Cell: 613 676 1655





1000 E. Mermaid La., Wyndmoor (Phila.) PA 19038-8093  
Tel. (215) 233-2600 Fax (215) 233-5653

## Certification

### SOLD TO

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7

June 5, 2012

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<b>Metlab Shop Order No:</b>	72197
<b>Purchase Order:</b>	16899
<b>Description:</b>	Crosstube
<b>Part No.:</b>	D350-748-141TRN, D350-748-241TRN
<b>Quantity:</b>	7 and 4 Pieces, Respectively
<b>Weight:</b>	500 Pounds
<b>Material:</b>	4130 Alloy Steel
<b>Specifications:</b>	Heat Treat to Minimum 180 KSI (MIL-T-6736OR AMS 2759-IC)
<b>Note:</b>	Need HRC 40 -45

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This is to certify that the above parts were processed as indicated above and conform to the specification requirements.

### Results:

HRC 45 (218 KSI Tensile Strength, Converted)

METLAB

Quality Representative

Mark Podob

MERCURY CONTAMINATION: During the heat treating process, testing and inspections, the product did not come in direct contact with mercury or any of its compounds nor with any mercury containing device.



Heat Treating and Metallurgical Consulting

